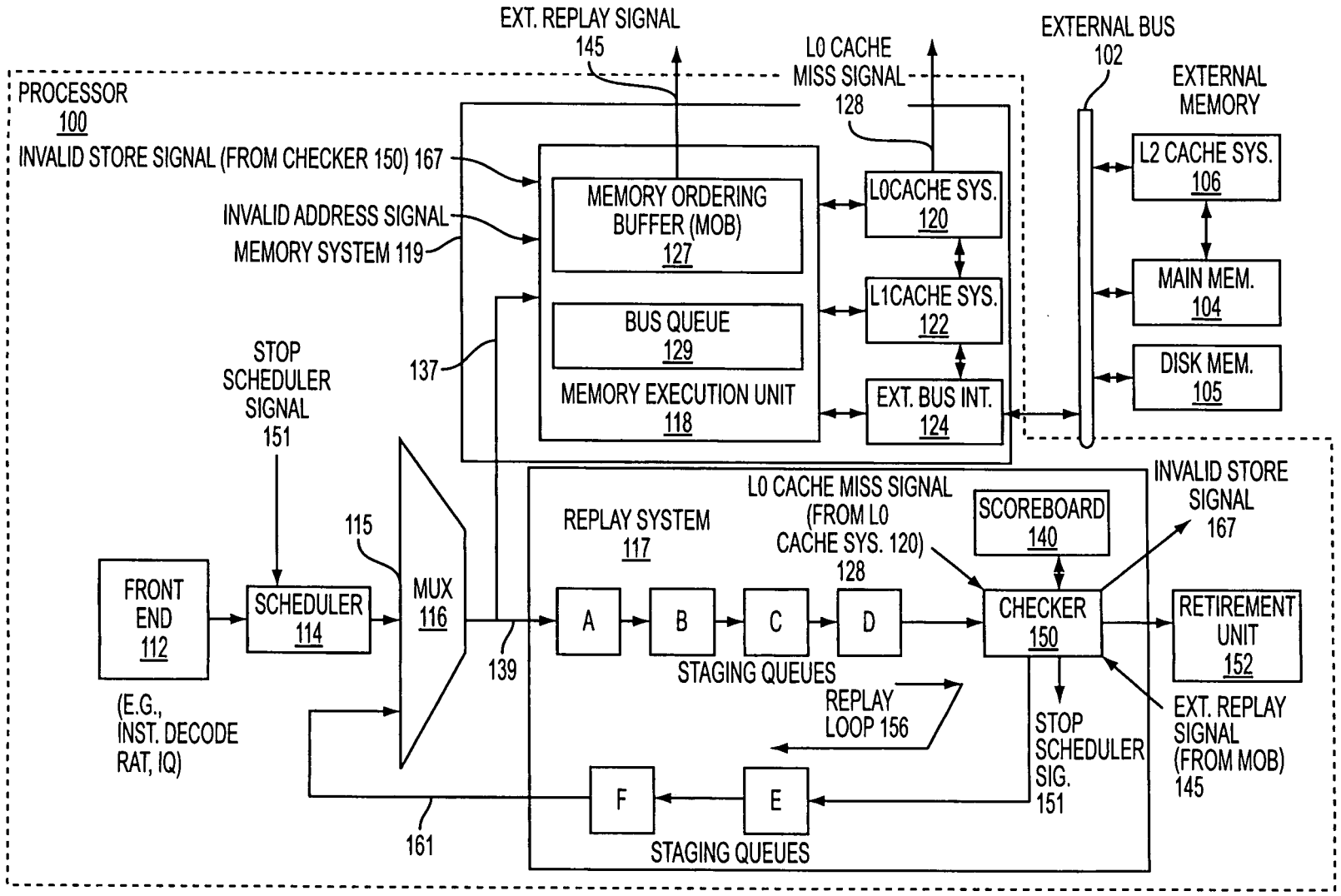

FIG. 1

OIPE
APR 11 2006
PATENT & TRADEMARK OFFICE

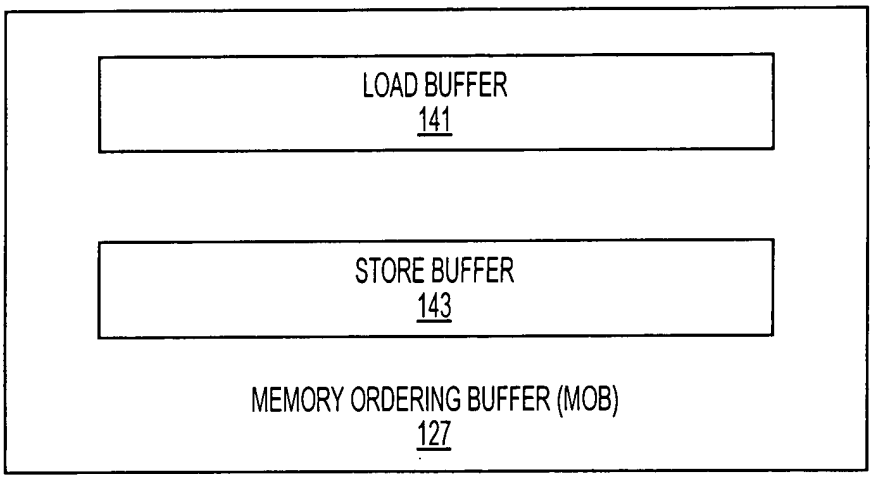
LOAD BUFFER
141
STORE BUFFER
143
MEMORY ORDERING BUFFER (MOB)
127

FIG. 2

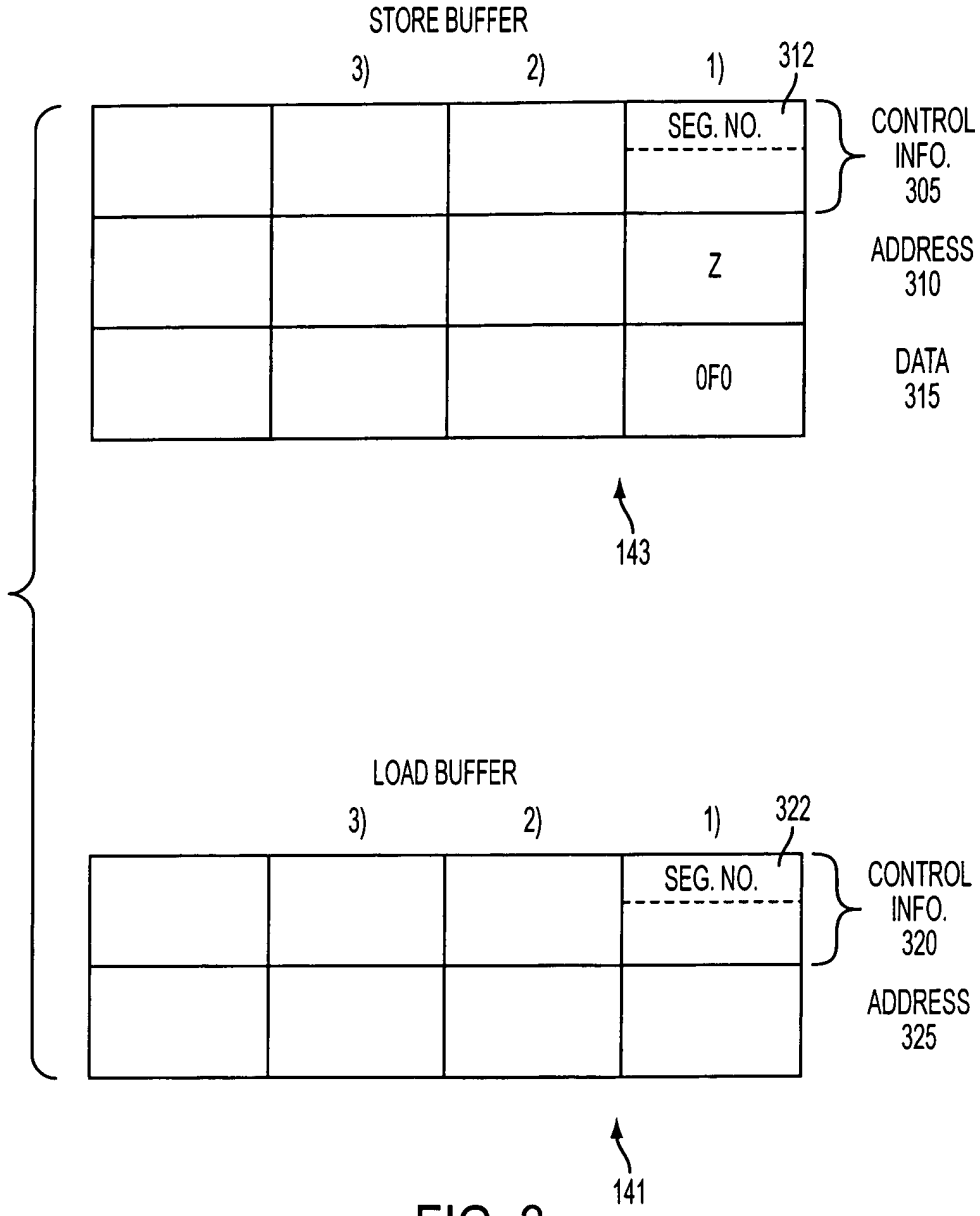
STORE BUFFER
3)
2)
1)
312
SEG. NO.
CONTROL INFO. 305
Z
ADDRESS 310
0F0
DATA 315
143
LOAD BUFFER
3)
2)
1)
322
SEG. NO.
CONTROL INFO. 320
ADDRESS 325
141

FIG. 3

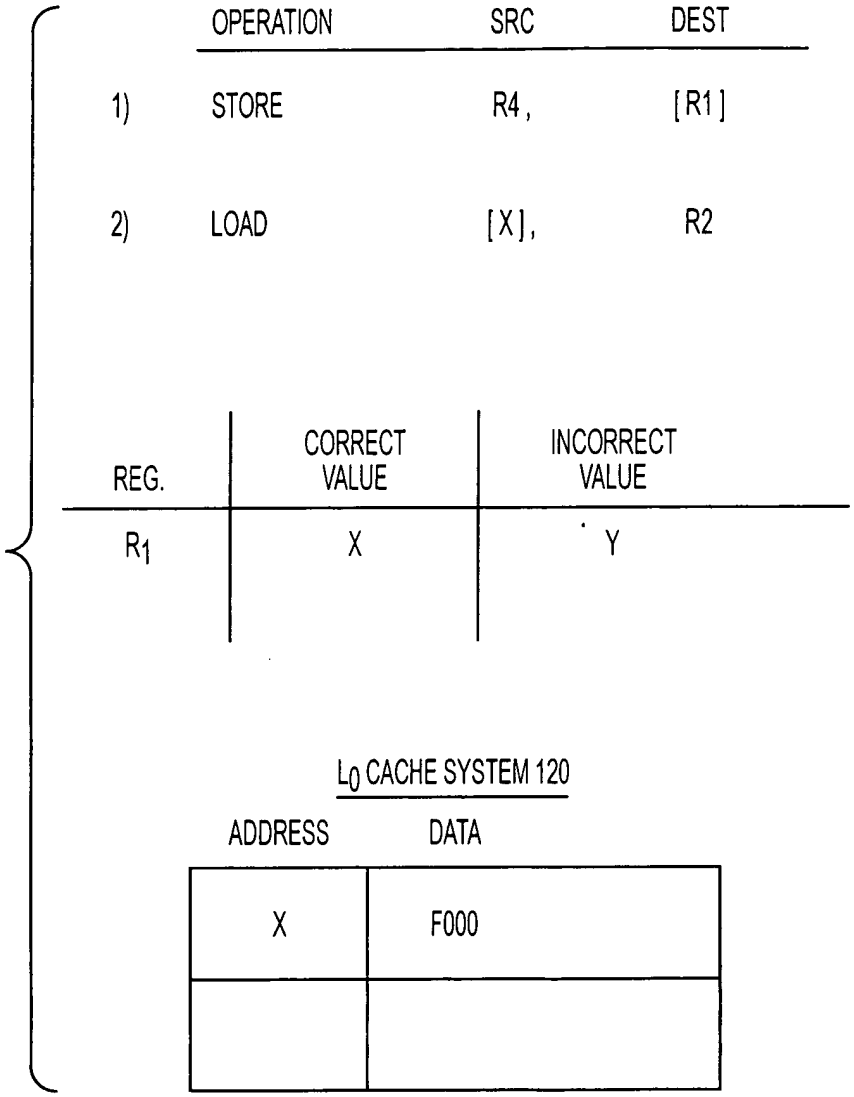
OPERATION
SRC
DEST
1) STORE R4, [R1]
2) LOAD [X], R2
REG.
CORRECT VALUE
INCORRECT VALUE
R1
X
Y
L0 CACHE SYSTEM 120
ADDRESS
DATA
X
F000

FIG. 4

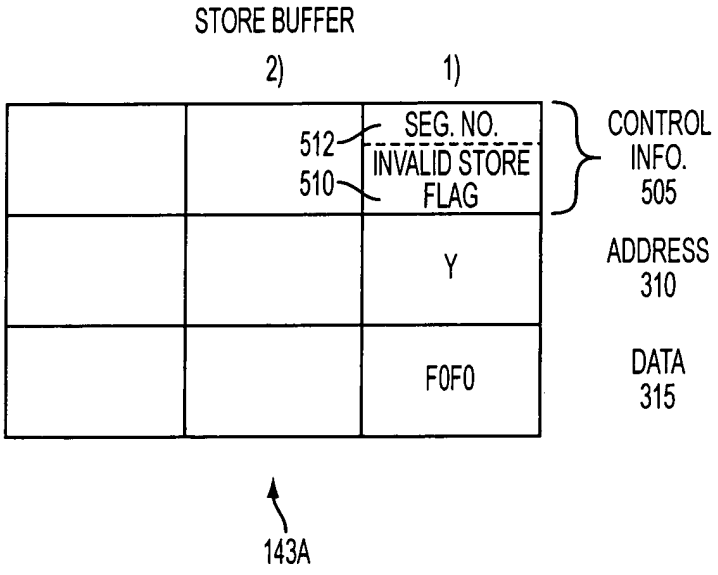
STORE BUFFER
2)
1)
SEG. NO.
512
INVALID STORE FLAG
510
CONTROL INFO. 505
Y
ADDRESS 310
F0F0
DATA 315
143A

FIG. 5

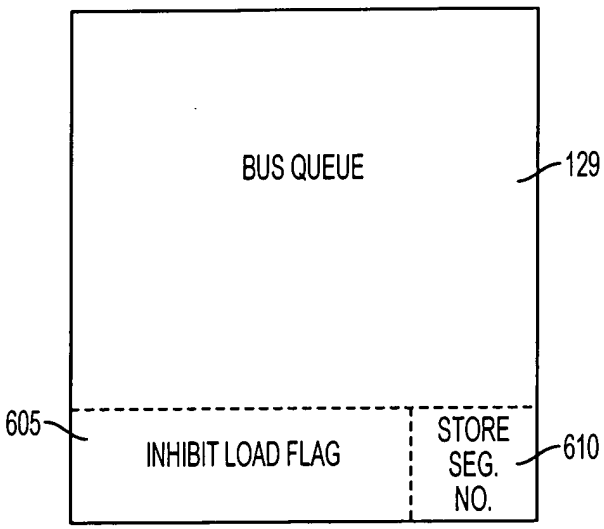

FIG. 6

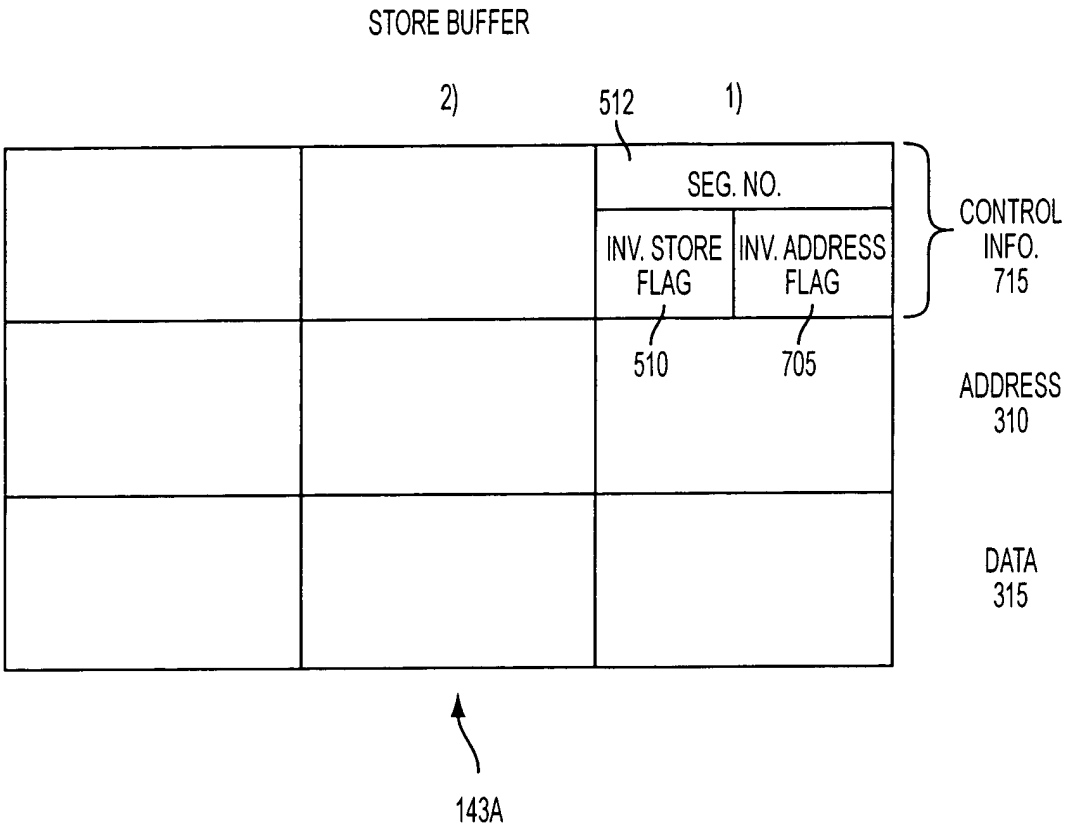
STORE BUFFER
2)
512
1)
SEG. NO.
INV. STORE FLAG
INV. ADDRESS FLAG
CONTROL INFO. 715
510
705
ADDRESS 310
DATA 315
143A

FIG. 7